

# ATTACHMENT E

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Medical Examination for Security Police Officers  
Which also Serve as First Responders

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## **Attachment E – Medical Examination for Security Police Officers which also serve as First Responders**

### **Provision**

First Responders shall make security inspections of GSFC industrial and general office facilities to observe, evaluate, and respond to emergencies, security, law enforcement, and safety incidents/conditions.

While performing these duties, First Responders may be exposed to potentially hazardous and physically challenging situations, environments, and substances.

GSFC reserves the right at any time to request medical records for review by the GSFC Medical Director.

### **Standardized GSFC Medical/Fitness Examination**

The implementation and application of a single GSFC Medical/Fitness Examination standard for all First Responders shall be used to ensure that the health of the individual First Responders shall be at a level that permits them to perform job-related assignments safely, effectively, and without hazard to themselves or others.

### **Physical Requirements Rationale**

The following is a general description of the physical requirements of the First Responders positions affected by this Medical Examination and Fitness Guidance.

### **First Responder Duties**

The duties of First Responders are performed under conditions that vary from sedentary to maximum exertion. Normal work conditions require the First Responders to perform in a reliable manner under adverse weather or situational conditions.

First Responders shall gather, respond to, and report facts under potentially hazardous worksite conditions. This may include physically confronting an adversary or disturbed person, working at heights, underground, in confined spaces, in poorly lighted facilities, in emergency situations, and working in environments with weather, chemical, physical, and biological hazards.

Some of the hazards First Responders face may require the use of personal protective equipment, such as over-clothing, protective vests, helmets, and protective masks. The proper use of personal protective equipment, body armor, uniform items, and clothing requires a moderate level of fitness and overall health.

## **Entrance “On Duty” Medical Examination**

Before entrance on duty and annually during employment, applicants and employees in First Responders positions shall undergo a medical examination and be physically and medically capable of performing the essential duties of the position efficiently and without hazard to themselves or others. (Ref. NPR 1600.1 Para 7.9.4. “Conditions Under Which Firearms May be Carried by Center Security Personnel Including Shoulder-Fired Weapons”).

## **Routine Medical Evaluations**

Routine medical evaluations, by the Contractor annually, serve to monitor the First Responders health status to ensure that he or she maintains a condition which would meet the criteria of this standard. In addition, routine medical monitoring tracks conditions which may develop as a result of exposure to toxic materials, such as lead dust, which have latent periods for symptom development.

## **Failure to Meet Medical and Physical Qualifications**

Failure to meet the required-physical and medical qualifications shall be considered disqualifying for continued employment as a First Responder.

## **Medical Examination Parameters**

### **Vision**

First Responders work activity routinely requires the reading of comprehensive literature; both near and far visual acuity is necessary for security/hazard recognition; potentially life threatening environments exist (therefore, accurate reading of the type of personal protective equipment is necessary); color coded warning signs represent hazardous conditions. While making routine inspections, First Responders will encounter situations where full field of vision will be necessary in order to detect security situations or avoid serious accidents. For example, while inspecting on an upper floor, it may be necessary to rapidly descend in pursuit. Normal field of vision is necessary to perform this activity effectively and safely.

Distant visual acuity shall be at least 20/40 in each eye with corrective lenses; distant binocular acuity of at least 20/40 with corrective lenses.

Near visual acuity shall be corrected to at least 20/40 in each eye; near binocular acuity of at least 20/40 with corrective lenses.

Field of vision shall be at 90 degrees in the horizontal meridian in each eye.

Ability to distinguish the colors shall be present for red, amber, and green.

## **Hearing**

It is important that First Responders have an established hearing level in order to communicate and give instructions in a noisy environment. During the course of daily activities, it is important for First Responders to hear instructions and communications in order to ensure security/safety. A greater than 40 decibel loss of speech frequency in the better ear may interfere with the First Responders ability to communicate under noisy conditions.

First Responders hearing loss in the better ear shall not be greater than 40 decibels at 500 Hz, 1,000 Hz, and 2,000 Hz, with a hearing aid.

First Responders routinely work in areas where a broad spectrum of physical hazards exists, including environmental noise levels above 90 decibels.

## **Musculo-Skeletal**

First Responders shall have no impairment of the use of a leg, a foot, an arm, a hand, the fingers, back or neck that would interfere with the functional requirements of the First Responders position.

First Responders shall have no established medical history or clinical diagnosis of rheumatic, arthritic, orthopedic, muscular, neuromuscular, or vascular disease which would interfere with the ability to perform the functional requirements of a First Responder position.

## **Work Activity**

First Responders are required to perform moderate to strenuous lifting, carrying, walking and standing for prolonged periods exceeding 60 minutes.

First Responders will routinely be required to ascend or descend heights in order to safely egress from a potentially hazardous area.

During routine activities, First Responders shall wear or carry portable protective equipment and a firearm with ammunition, located at the waist.

## **Rationale**

First Responders shall have no or very limited established medical history of cardiac or pulmonary disease. Rapid periods of great physical exertion place an excess burden on the cardiopulmonary system.

First Responders are required to wear a protective mask which burdens respiration, it is imperative a physician medically qualify the applicant to wear such protective equipment. It is known that pre-existing cardiac or respiratory disease can prevent an individual from using such protective equipment.

## **Medical Examination Requirements**

The medical examination required herein shall be conducted by a physician or other authorized medical professional experienced in occupational medicine, by a physician who is a member of the American College of Occupational Medicine. The examining medical professional or institution will provide special instructional material (such as necessary fasting periods or special eating instructions) to management which will in turn provide this information to the applicant/employee prior to the examination.

### **Medical History**

Review of the applicant/employee's history shall be conducted in regard to personal and family medical history and a work history including occupational exposures to chemical, biological, and physical hazards.

Appropriate medical forms shall be completed by the applicant and provided to the medical professional prior to the examination.

There shall be an examining room discussion between the applicant/employee and the medical professional regarding medical history, with special attention given to the questionnaire on occupational exposures to chemical, biological, and physical hazards.

The development of the medical history is to be inclusive of what is commonly termed multi-phasic screening.

### **Specific Examination Tests and Requirements**

The physical examination shall include, but not be limited to, a review of the following: head and neck, including visual tests, an examination of the ears, nose and throat, an examination of the respiratory, cardiovascular and central and peripheral nervous systems, an examination of the abdomen, rectum, and genitourinary system, an examination of the spine and other musculoskeletal systems, and an examination of the skin.

Specific tests/measurement to be obtained includes:

- Height and weight
- Temperature, pulse, respiration rate, blood pressure
- Eye examination
- Visual acuity, near and far
- Depth perception
- Accommodation
- Field of vision
- Fundiscopic

Cardiopulmonary evaluation shall include the following requirements:

- Resting twelve-lead electrocardiogram with interpretation.
- A sub-maximal exercise test with a twelve-lead EKG shall be required of those applicants found to be in a category of risk greater than 18 per 100, according to the Coronary Risk Handbook published by the American Heart Association.

Pulmonary function Evaluation shall consist of the following:

- FVC, FEV1, FEV1/FVC ratio
- Permanent record of flow curves must be included in the patient's report
- Chest X-ray (PA) 14 x 17 inches as a baseline.

Comprehensive laboratory profile shall consist of the following:

- Urinalysis (including microscopic)
- Hemocult
- CBC.

The following Test chemical groups shall be completed after a 12-hour fast:

- Chloride, bicarbonate
- Glucose
- Blood urea nitrogen
- Creatinine
- Uric acid
- LDH, SGOT, SGPT, GGTP
- Alkaline phosphatase
- Bilirubin
- Total protein
- Albumin and globulin
- Cholesterol
- Triglycerides
- HDL Cholesterol
- Potassium
- Calcium
- Blood lead, if indicated. A blood lead and zinc protoporphyrin shall be done when there is a history of lead exposure or when the test is indicated in the physician's judgment.

### **Audiometric Testing**

### **Otoscopic Examination**

An otoscopic examination, otological history, and audiometric test shall be administered by an otolaryngologist, audiologist, or certified audiometric technician.

### **Audiometric Examination**

Audiometric facilities, equipment, calibration procedures, and technician certification shall meet the requirements outlined in 29 CFR 1910.95.

### **Evaluation of Test Results**

The results of the otoscopic examination, otological history and audiometric tests shall be reviewed by an otolaryngologist, audiologist, or other qualified medical professional.

### **Personal Protective Equipment Evaluation**

The examining physician will evaluate the following results to determine the applicant's ability to utilize personal protective equipment including a protective mask and protective clothing.

### **Medical Occupational History**

Conditions such as myocardial infarction, angina, severe emphysema, or any significant cardiac or pulmonary condition shall be disqualifying.

### **Pulmonary Function Test**

Evidence of moderate to severe restrictive or obstructive airway pattern shall be disqualifying.

### **Chest X-ray**

Evidence of cardiopulmonary pathology shall be disqualifying.

### **Electrocardiogram**

Obvious cardiac disease shall be disqualifying.

### **Reporting Requirements**

Examining Physician (or other qualified medical professional) to the Applicant/employee. The examining medical professional will generate personal medical reports for all applicant/employees examined and mail them to their private residence within 15 working days of the date that the applicant/employee is examined. The results will list each test, individually indicating whether a result is normal or abnormal and, if appropriate, a recommendation for referral to the applicant's private physician will be made. In addition, the personal medical report will contain:

- a. The medical professional's opinion as to whether the applicant/employee has any detected medical condition(s) which would place the applicant/employee at increased risk of material health impairment from work exposures and practices.

- b. Determination of the applicant/employee's ability to wear any personal protective equipment.

Examining Medical Professional to NASA Security Contract Management. The examining medical professional will forward to the NASA Security Contract Management:

- a. A written opinion as to whether the applicant/employee's health would be at increased risk of material impairment from the First Responders work environment.
- b. A written statement regarding the applicant/employee's ability to wear protective equipment.
- c. A written statement that the applicant/employee has been informed in writing by the medical professional of the results of the medical examination.
- d. The examining medical professional shall utilize the appropriate medical forms.

### **Medical Records**

Upon completion of the medical examination, the medical professional shall forward to the employees managers office, each applicant/employee's complete medical record. The envelope shall be marked PERSONAL Sensitive But Unclassified (SBU) and the package shall include:

- a. Completed medical/occupational history forms.
- b. Completed physical examination forms.
- c. All laboratory test results.
- d. Chest X-ray (radiograph and interpretation).
- e. Pulmonary function test.
- f. Audiometric test results.

These documents shall be maintained in the applicant/employee's "Employee Medical File" They shall be made available for examination by NASA Security as evidence of contract compliance for as long as the employee is employed as a First Responder. If the applicant is not hired into the position, or if an employee is removed from a First Responders position on the basis of medical disqualification, his or her records will be retained until no longer needed. If no legal or administrative challenges are made regarding the handling of the disqualification, the file will be retained in a secured central location and will be destroyed after a one-year retention period. A log detailing the location and disposition of the records will be maintained by the Program Manager.